



Achyranthes velutina

Common Name(s):

Devils horsewhip

Current Threat Status (2012):

At Risk - Naturally Uncommon

Distribution:

Known in a natural state only from Macauley Island in the southern Kermadec Island group. *A. velutina* is known from throughout the Pacific. It is *A. velutina* not *A. aspera* L. that was recorded once as naturalised from Silverdale in North Auckland in 1960.

Habitat:

Amongst sea bird burrows on the margin of steep cliffs in association with grasses and sedges.

Features*:

Small, much branched, monoecious shrub. Rootstock stout, woody. Stems somewhat succulent at first, ribbed becoming basally woody with age ribbed, densely covered in velutinous, appressed hairs. Petioles 5-10 mm long, pink, fleshy, velutinous, basal abscission zone evident. Leaves opposite, spreading to decurved, densely clustered toward branch tips, 40-50 x 25-30 mm, dark green, green or purple-grey, margins often, suffused with pink or red, mostly broadly ovate, ovate-orbicular or elliptic; apex blunt to abruptly subacute, sometimes shortly apiculate; base attenuate; lamina fleshy, veins distinct, often purple, upper and lower surfaces silky canescent, margins crenulate to crenate.

Inflorescence a terminal erect spike, 150-200 mm long. Peduncle 15 mm long, fleshy, white-villous; spike rachis fleshy, white-villous to purple-villous; flowers bisexual, retrorse, sessile, c. 180-200 per spike, initially spaced at 10 mm intervals this diminishing to < 1 mm intervals toward inflorescence apex. Bracts persistent on rachis, 3-3.5 x 0.5-1 mm, ovate to lanceolate, strongly retrorse, chartaceous, weakly keeled near apex only, pale white, margins entire, apex acute, sometimes with a small 0.1-0.2 mm long pale yellow mucro. Bracteoles 2; abscising with senescent flowers; 0.2-1 mm long, broadly ovate, chartaceous hyaline, lustrous, pale caramel; margins entire; strongly keeled, keel lustrous, caramel brown, extending well beyond bract as a hardened, channelled, strongly recurved, falcate spine 4-5 mm long. Perianth segments (sepals) 5, lanceolate, central portion pale caramel-brown, distinctly pink-tinged, margins pale yellow or off-white opaque, hairy; segments subequal, 4.5-6 mm, channelled. Stamens 4, fused at base, filaments 0.5-1 mm, alternating with 4 narrowly spatulate 0.4 x 0.6 mm white-hyaline, petaloid, fimbriate-margined pseudostaminodes; anthers 0.4-0.6 mm, yellow. Style 0.6-1 mm, pink to pale orange, arising from a fleshy papillate style base 0.8 mm diameter; stigma brown, truncate. Utricle 2-2.5 mm, dark brown, turbinate, chartaceous, surmounted by the dry somewhat woody, style base. Seed 1.2-1.8 x 0.9-1.2 mm, dark chesnut brown, ovoid to ellipsoid.

Flowering:

Throughout the year

Fruiting:

Throughout the year

Threats:

This species is only known from a single natural occurrence in New Zealand, Macauley Island in the Kermadecs. It is under no obvious threat and is apparently a recent example of a natural long distance dispersion with subsequent successful establishment on this island.

*Attribution:

Fact Sheet prepared for NZPCN by P.J. de Lange 1 January 2005. Description from de Lange et al. (2004) - as *Achyranthes aspera* (see taxonomic notes)

References and further reading:

Barkla, J.W., P.J. Dilks, T.C. Greene and R. Griffiths 2008 *Homalanthus polyandrus* (Euphorbiaceae) on Macauley Island, southern Kermadec Islands, with notes on that island's vascular flora. *New Zealand Journal of Botany* 46: 373-379.

de Lange, P.J., R.P. Scofield and T.C. Greene 2004 *Achyranthes aspera* (Amaranthaceae) a new indigenous addition to the flora of the Kermadec Islands group. *New Zealand Journal of Botany* 42: 167-1773.

Webb CJ, Sykes WR, Garnock-Jones PJ 1988. Flora of New Zealand. Vol. IV. Botany Division, DSIR, Christchurch.

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 2009 Vol. 11 No. 4 pp. 285-309

For more information, visit:

http://nzpcn.org.nz/flora_details.asp?ID=723



Caption: Macauley Island, Kermadec Islands. May 2011.

Photographer: Peter de Lange



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